

Notice of Allowability

Application No.

09/657,121

Examiner

Pramila Parthasarathy

Applicant(s)

SWANBERG ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendemnt filed on December 13, 2004.
2. ☒ The allowed claim(s) is/are 1-6,8-14,16-21 and 23-31.
3. ☒ The drawings filed on September 07, 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

E. Moise
EMMANUEL L. MOISE
PRIMARY EXAMINER

DETAILED ACTION

1. Claims 1 – 6, 8 – 14, 16 – 21 and 23 – 31 are pending in this application. Claims 7, 15, 22 and 32 – 36 have been cancelled.

Allowable Subject Matter

3. Claims 1 – 6, 8 – 14, 16 – 21 and 23 – 31 are allowed.

The following is an examiner's statement of reasons for allowance:

The present invention pertains generally to new memory protection classification specific for stack memory and, more particularly a method and system for stack memory protection. The claimed invention (Claim 1 as representative) recites features such as: "... generating new memory page attributes for a page table used to manage memory, each of said new memory page attributes identifying a block of memory as a new class of memory, each of said new memory page attributes generated by a corresponding new load/store instruction; assigning, by an operating system or a processor, a selected one of said new memory page attributes to a selected block of memory, said selected block of memory used as a new class or memory corresponding to said selected new memory page attribute; blocking normal load/stores to a memory block with one of said new memory page attributes; and blocking a first new load/store to a memory block with one of said new memory page attributes not corresponding to said first new load/store."

The prior arts of record teach the concept of memory protection via segment descriptors and process privilege rings; Kane et al. (U.S. Patent Number 5,596,739) is one example of such prior arts. The prior arts of record, however, fail to teach singly or in combination, additionally assigning a new attribute to a selected block of memory thereby creating a new class of memory accessible only by new in load/store instructions, wherein normal load/store instructions are blocked from the block of memory without the assigned new attribute. The examiner agrees with the Applicants arguments with regard to this feature in view of the arts of record; therefore, the Examiner favors the allowance of Claims 1 – 6, 8 – 14, 16 – 21 and 23 – 31.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 703-305-8912. The examiner can normally be reached on Monday – Friday (8:00am – 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Any

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inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy

January 05, 2005.

cf - rj
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EMMANUEL L. MOISE
PRINCIPAL EXAMINER